

Bringing Climate Action Home:

Your Road to Energy Savings, Rebates and Tax Credits



PV Solar



Heat Pumps



Electric Vehicles

Climate Change and The Threat to Our Planet

Climate change is the single biggest health threat facing humanity. Climate impacts are already harming health, through air pollution, disease, extreme weather events, forced displacement, pressures on mental health, and increased hunger and poor nutrition in places where people cannot grow or find sufficient food.



What Causes Climate Change?

- Burning Fossil Fuels including Coal, Oil and Gas
- Cutting Down Forests
- Using Transportation including Cars, Trucks, Airplanes
- Manufacturing Goods
- Powering Buildings



What are the Effects of Climate Change?

- Hotter Temperatures
- More Severe Storms
- Increased Drought
- Warming, rising ocean
- Loss of Species
- Not Enough Food
- Health Risks
- Poverty and Displacement



Federal/State Climate Action Goals To Address Climate Change

Inflation Reduction Act (IRA)

Reducing U.S. greenhouse gas emissions 50% below 2005 levels by 2030

Reaching 100% carbon pollution-free electricity by 2035

Achieving a net-zero emissions economy by 2050

Delivering 40% of the benefits from federal investments in climate and clean energy to disadvantaged communities

Decarbonization & Electrification

Reducing carbon dioxide emissions through the substitution of fossil fuel sources of power (coal, oil & gas) to those generated from renewable energy sources (solar, wind, hydro and geothermal)

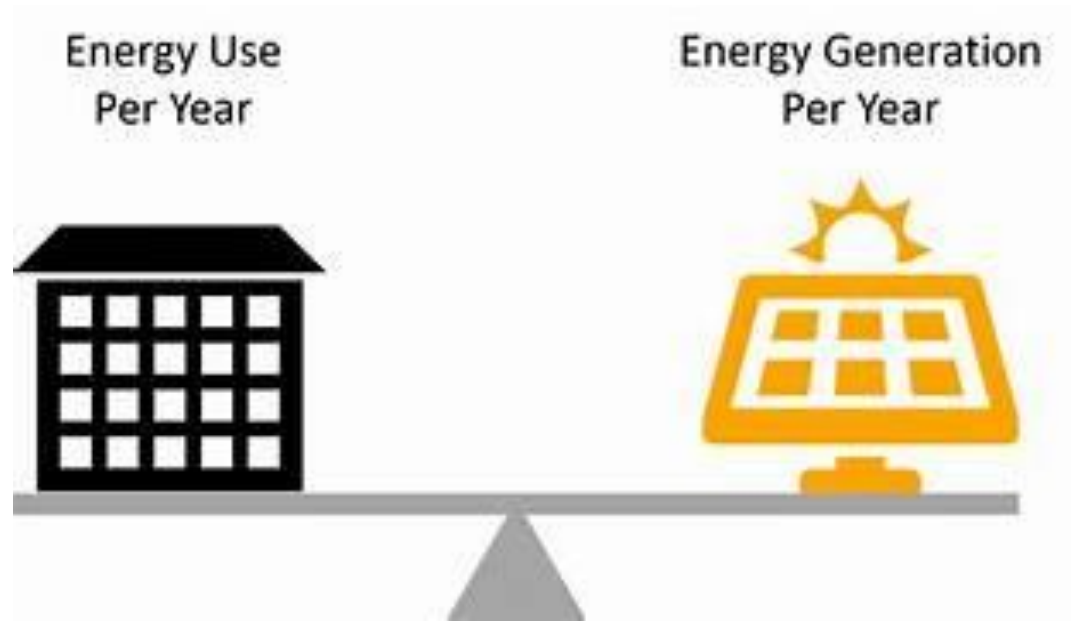




One Egremont Resident's Road to A Net-Zero Emissions Energy Home*

*** Or pretty darn close**

A Net-Zero Emissions Energy Home



Generating enough energy to power your home through renewable sources to fulfill the home's energy needs.

Getting My Home to Net-Zero

1. **Contacted Mass Save** (www.masssave.com)
 - Assessed home's energy envelope
 - Found rebates and incentives (heating systems, appliances, 0% loans, etc.) to make upgrades
2. Full Attic Insulation
3. Upgraded all appliances to electric Energy Star-rated products
4. Installed an 11-kwh solar array on the roof
5. Installed new windows and exterior doors to seal leaks
6. Replaced heating and cooling system with electric air source heat pumps (aka ductless mini-splits)



Electric Air Source Heat Pumps

- Ductless mini-splits provide heating and cooling
- Amount of heat produced is less than the energy used
- Create zones of heating/cooling
- Quiet
- Perfect paring with pv solar
- Eligible for grants and rebates



Home Energy Improvement Costs

Expenses		Tax Credits/Rebates	
Attic Insulation	0	PV Solar	12,000
11 kwh PV Solar	30,000	Smart Payments	12,000
Heat Pumps	20,000	Heat Pumps Rebate	5,000
Windows/Doors	15,000	Heat Pump Loan	0% interest
Appliances	5,000	Appliance Rebates	1,000
= \$70,000		= \$30,000	
Net Cost: \$40,000			

My Annual Home Energy Costs Since Updating & Electrifying

\$200

Propane heating stove for backup heating

Net Cost - \$40,000

Energy Savings Per Year - \$5,000

Investment Payback Period: 8 years

99.9% Net Zero Energy Home

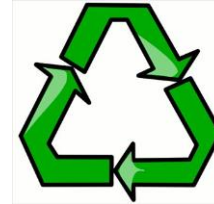
Next Step On My
Decarbonization
Road – Purchase an
Electric Vehicle



Actions We Can Do Right Now To Mitigate Climate Change

Easy First Steps:

- Plant Native Species
- Compost Your Food Scraps
- Reduce, Reuse, Recycle
- Eat More Locally Sourced Vegetables
- Carpool, Take Public Transportation, Minimize Flying



Actions We Can Do Right Now To Mitigate Climate Change



Advanced Next Steps:

- Contact Mass Save
www.MassSave.com
- Conserve Energy
- Make Your Home More
Energy Efficient
- Ditch the Fossil Fuels and
Electrify Your Home
- Invest in Renewables



It is important to stay informed
and engaged with others in
recognizing our collective
responsibility for a clean energy
future.

Let's rise to the challenge and
create a brighter future for
ourselves and future generations.





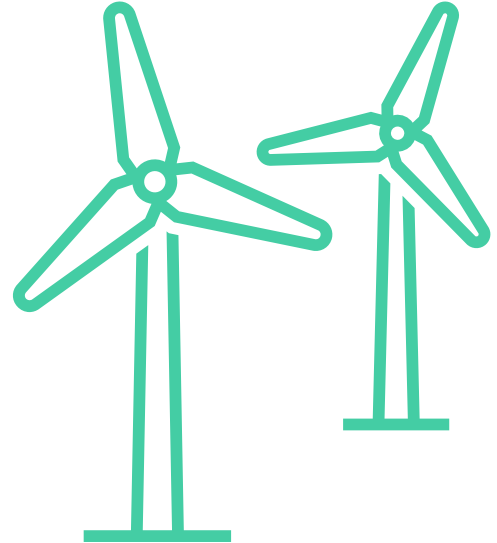
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About Green Energy Consumers Alliance

Harnessing our power as energy consumers to speed the transition to a zero-carbon future.

- Non-profit founded in 1982
- Massachusetts & Rhode Island
- Programs & Advocacy



How do you heat your home?

Please answer the poll to let us know!

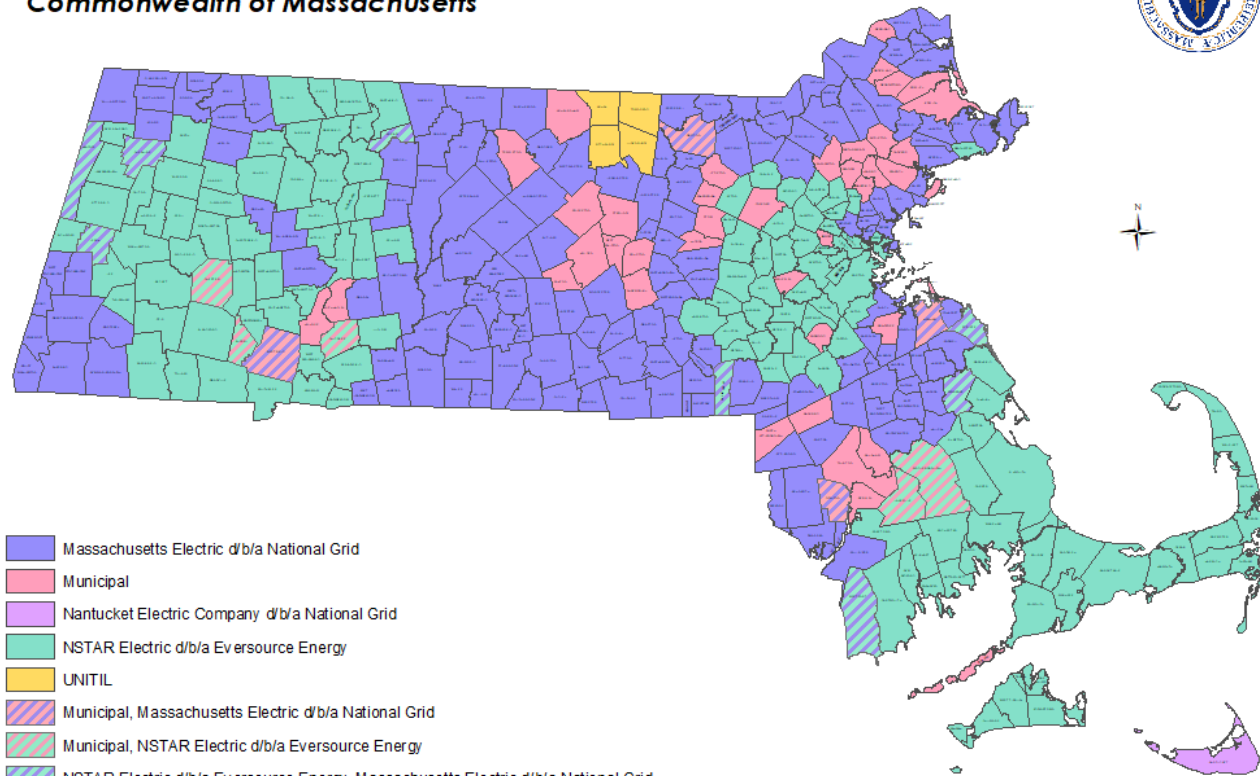


Clean Heating Incentives



Electricity Providers by Municipality

Commonwealth of Massachusetts



- Massachusetts Electric d/b/a National Grid
- Municipal
- Nantucket Electric Company d/b/a National Grid
- NSTAR Electric d/b/a Eversource Energy
- UNITIL
- Municipal, Massachusetts Electric d/b/a National Grid
- Municipal, NSTAR Electric d/b/a Eversource Energy
- NSTAR Electric d/b/a Eversource Energy, Massachusetts Electric d/b/a National Grid

Source: Massachusetts Department of Public Utilities, September 2021



EOTSS
Executive Office of
Technology Services & Security



Map by MassGIS, 11/30/2021



Massachusetts: Mass Save Rebates

Whole Home

- \$10,000 per home/apartment
 - Multifam bldgs: only up to 4 units
 - 5 units + must go through building manager for different rebate program
- Must be sized to meet 100% of your heating needs
- You are not required to remove your legacy fossil fuel heating system

Partial Home

- \$10,000 per home/apartment
- \$1,250 per ton of heating capacity
 - 1 ton = 12,000 BTUs
 - Roughly 500 SF
- "Integrated control" smart thermostat may be required
 - Toggles automatically between heat pump and fossil fuel HVAC depending on temperature



Inflation Reduction Act


Find Out What Applies to You - <https://www.rewiringamerica.org/app/ira-calculator>

**REWIRING
AMERICA**

YOUR SAVINGS CALCULATOR

**How much money will you
get with the Inflation
Reduction Act?**

Enter your household information to find out.



Zip Code ⓘ

Homeowner Status ⓘ

Household Income ⓘ

Tax Filing ⓘ

Household Size ⓘ



Federal: Energy Efficiency Tax Credits

Claim 30% of energy efficiency costs, up to certain limits

- \$2,000 for heat pumps, HP water heaters
- \$600 for electrical panel upgrades
- \$600 per window
- \$250 per door
- Total of \$3,200 per year
- No roll-over

For more information:

<https://www.irs.gov/credits-deductions/energy-efficient-home-improvement-credit>



Massachusetts: Mass Save Rebates

Homes

- Open to all incomes
- Based on total energy savings predicted
- Savings must be modeled or measured by a professional
- Up to \$4,000 for most households
 - Doubled for low-income occupied properties

HEEHRA

- Moderate- and low-income
 - Moderate = \$110K
Egremont 2-person
- Up to \$14,000
- How to apply has not yet been announced

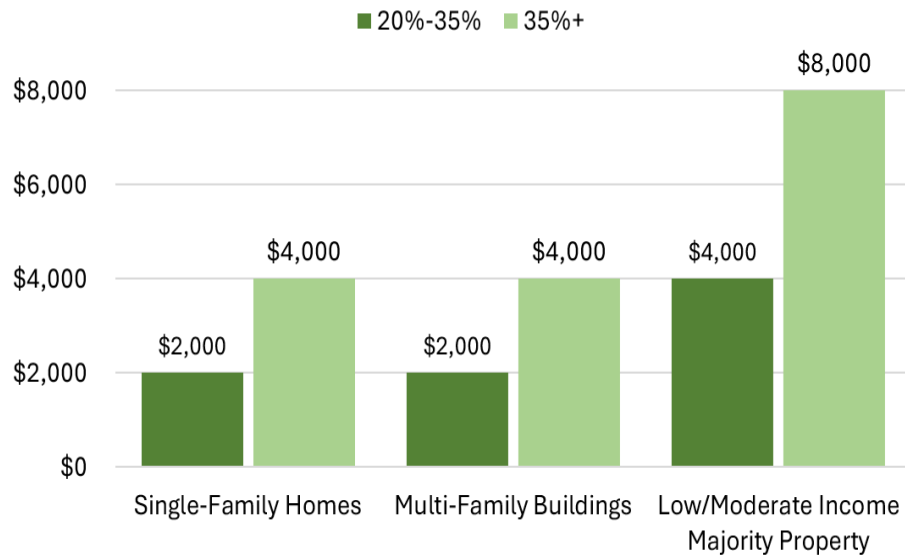
For more information, see [Rewiring America calculator](#).



HOMES Program, Rebates Administrated by States

\$4.3 billion for US
\$73 million for Mass.

- Rebates based on projected energy savings of total retrofit
- No income restrictions: up to 50% of project cost
- Low-income adder: up to 80% of project cost
- HERS Raters can project savings
- Starts in 2023



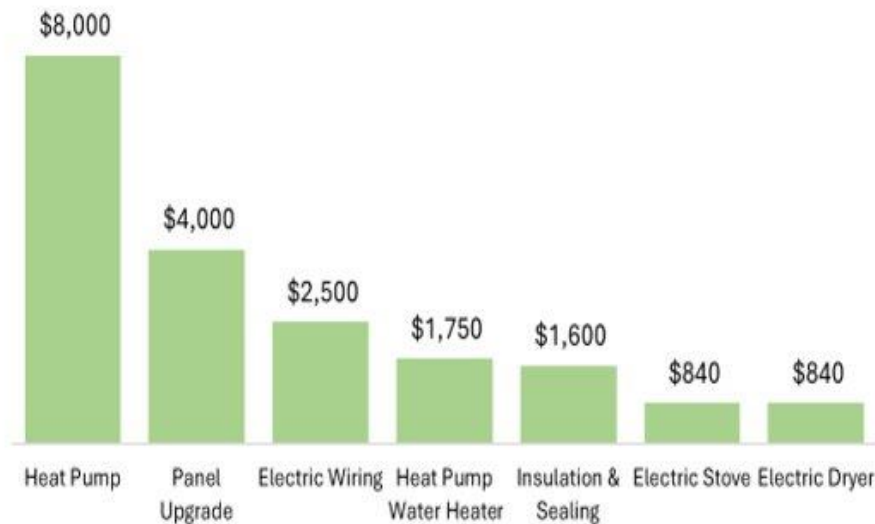
Source: [Atlas Buildings Hub](#)



High Efficiency Electric Home Rebates

\$4.5 billion for US
\$73 million for Mass.

- Income-qualified rebates
- <80% AMI: up to 100% of cost
- <150% AMI: up to 50% of cost
- Cap: \$14,000/unit
- Starts in 2023
- Can't be combined for same measure



Source: [Atlas Buildings Hub](#)

AMI Source: [Area Median Income Lookup Tool](#)



Green Energy Consumers' Heat Pump Program

- Helping energy consumers find trusted vendors and sound advice
- On-line portal to find trusted heat pump installers (free)
- Independent quote comparison (\$75 – a 50% discount)
- Expert virtual consultations about your home (\$150)
- More details on our website!

greenenergyconsumers.org/heatpumpformyhome



Federal: Residential Clean Energy Tax Credit

- Solar PV and water heating
- Home battery storage – with or without solar
- Geothermal (ground-source) heat pumps
- Extends for 10 years a tax credit that was set to expire
- 30% from 2022 till 2032; 26% in 2033, and 24% in 2034
- Having a solar array at your home, or community solar, are good ways to reduce operating costs of electric heating



Solar Shopping: We Recommend EnergySage

- Easy, free registration
- Competitive pricing – up to 7 quotes from pre-screened installers
- Side-by-side quote comparisons
- Independent, knowledgeable solar advisors
- No sales calls and no obligation to install

Register to support Green Energy Consumers:

greenenergyconsumers.org/solar



Electric Vehicle Incentives



Clean Vehicle Credit: 2023 & Beyond



- Up to \$7,500 based on personal tax liability
- Valid through 2032
- Manufacturers & Models for New Cars
- Income requirements
 - <\$300,000 for joint filers
 - <\$225,000 for heads of household
 - <\$150,000 for individual filers
- Available for BEVs, PHEVs, and FCEVs
- New vehicle requirements













Three New Vehicle Requirements

1. **Assembly location:** Final vehicle assembly must be in North America (check by VIN)
2. **MSRP Price Cap:** \$80,000 for SUVs, vans, and pickup trucks; \$55,000 for sedans and hatchbacks
3. **Batteries:** Two sets of mineral and battery component requirements
 - Credit amount is **\$3,750** if vehicle meets only one battery requirement; **\$7,500** if it meets both; **\$0** if it meets neither



What Vehicles Qualify & For How Much?

Federal Tax Credits for Plug-in Electric and Fuel Cell Electric Vehicles Purchased in 2023 or After
(Vehicle placed into service on or after April 18, 2023)

Make	Model	Year	Vehicle Type	Credit Amount	MSRP Limit	Assembled in N. America
Cadillac						
	LYRIQ	2023-2024	EV	\$7,500	\$80,000	✓
Chevrolet						
	Blazer	2024	EV	\$7,500	\$80,000	✓
	Bolt	2022-2023	EV	\$7,500	\$55,000	✓
	Bolt EUV	2022-2023	EV	\$7,500	\$55,000	✓
	Equinox	2024	EV	\$7,500	\$80,000	✓
	Silverado	2024	EV	\$7,500	\$80,000	✓
Ford						
	E-Transit	2022-2023	EV	\$3,750	\$80,000	✓
	F-150 Lightning (Extended Range Battery)	2022-2023	EV	\$7,500	\$80,000	✓
	F-150 Lightning (Standard Range Battery)	2022-2023	EV	\$7,500	\$80,000	✓
	Mustang Mach-E	2022-2023	EV	\$7,500	\$80,000	✓

The U.S. Department of Energy has published a list at fuelconomy.gov/feg/tax2023.shtml

There you can choose what vehicles to see.

Filter table by...

Purchase Scenario (required)

- ☐ Vehicle placed in service on or after April 18, 2023.
- ☐ Vehicle placed in service after December 31, 2022, and before April 18, 2023.

Model Year

From: To: (optional)

Make

Model

Vehicle Type

- ☐ All-Electric EV
- ☐ Plug-in Hybrids PHEV
- ☒ All



Note: This list will change over time!

- The list of vehicles that are eligible for the federal Clean Vehicle Credit will change over time.
- Manufacturers will change their supply chains in order to qualify.
- The United States may sign more battery-mineral-specific Free Trade Agreements.
- Battery requirements ramp up every year.
- New vehicle models will come out.

Long story short: Check current incentives when you start shopping!



Important Leasing Loophole!

- The Inflation Reduction Act also created a commercial vehicle tax credit, which does not have the same eligibility requirements as the Clean Vehicle Credit.
- Dealerships can claim that commercial vehicle tax credit when they acquire vehicles from manufacturers to lease.
- Many are choosing to pass those savings onto consumers and advertising "\$7,500 lease rebates."

Long story short: If you have your eye on a vehicle that doesn't qualify for the Clean Vehicle Credit, you may want to consider leasing.



Starting 2023: Used Vehicles Qualify



- Battery requirements do not apply
- \$4,000 or 30% of sale price, whichever is lower
- Must buy vehicle from dealership
- Must be at least 2 years old and cost <\$25,000
- Only applies at first resale
- Lower income threshold
 - Joint filers: <\$150,000
 - Individual filer: <\$75,000



Starting 2024: Point of Sale



- Consumer can choose to transfer the tax credit to the dealership
- Details are still TBD!



Massachusetts: MOR-EV Rebate

For now:

- \$3,500 for battery electric vehicles (no rebate for plug-in hybrids)
- Final sales price must be under \$55,000 for all-electric and \$50,000 for plug-in hybrid
- Purchase or 36-month lease
- Apply online after purchase at mor-ev.org
- Can be purchased in and outside of MA

Coming Soon:

- New AND used
- Additional rebates for low-income drivers (Summer 2023) and trading in gas car (target fall 2023)
- Authorized point-of-sale



Support for Installing Charging

- **Federal tax credit** of 30%, only if you meet census tract requirements
- Make Ready & EVSE support from National Grid, different levels for different segments (**more info here**)
- **MassEVIP**, only for multi-unit dwellings, workplaces, and other non-residential locations
- ... more coming soon?



Drive Green Electric Vehicle Shopping Tool

Step 1: Compare The Cars

Current State: MA ✓ New Pre-owned

Sort by

Program eligibility

☐ In our program

Type

- ☐ Battery electric
☐ Plug-in hybrid

Electric range

- ☐ 200 or more miles
☐ 100 or more miles
☐ 50 or more miles

Base MSRP

- ☐ Less than \$30,000
☐ \$30,001 - \$40,000
☐ More than \$40,000

Cars In Our Program 8 results

AVAILABLE FOR PREORDER



[Visit Nissan's website](#)

Nissan Ariya

Vehicle Type
Battery electric SUV

Range
300 mi/charge

Drive
FWD/AWD

Efficiency
99 MPGe

Battery size
63 or 87 kWh

Towing Capabilities
1500 lbs

Level II Charging

Rate
22 kW

Speed
60 mi/hr charging

DC Fast Charging
Standard

Rate
130 kW

Plug type
J1772/CCS Combo

Base MSRP
\$47,125

Federal tax credit
\$7,500

MA state rebate
\$2,500

Price after incentives
\$35,950

☐ Select car

Notes from Green Energy Consumers:

Select the cars that you're interested in. Next you will select the trims that you want to see deals for.

[Next page](#)



DONATE

greenenergyconsumers.org/donate

*Photo Credit: New England
for Offshore Wind/Chris
Bennett Photography*



Mission

Speed the transition to a livable, safe, and low-carbon future



Programs

Enable consumers to make green energy choices



Advocacy

Support climate action in Massachusetts and Rhode Island

Upcoming Events

Electric Vehicles 101 with Quincy Asian Resources Inc. – July 20 at 7:00 PM

Save Money on an Electric Car: Rebates & Incentives – July 26 at 7:00 PM

Ask an EV Driver – August 2 at 6:00 PM

Climate Change Preparedness: Making It Affordable – August 3 at 5:00 PM

Is a Used Electric Car Right For You? – August 10 at 12:00 PM

Clean Energy Incentives For All at Westfield State University – September 27 at 6:30 PM

greenenergyconsumers.org/events



Read our blog!

Tell Massachusetts About Your EV Charging Needs

– Published July 13

Help Reduce The Need for Fossil Fuels on Hot Days

– Published June 20

Public Housing Needs Climate Funding: A Clean Heat Standard Will Help

– Published June 12

blog.greenenergyconsumers.org/blog



Thank you!

Questions?

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